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REMARKS/ARGUMENTS

Claims 1-4 and 12-13 are pending in this application with claims 6-10 being cancelled.

Claim 1 has been amended to correct a typographical error and state that "evaluation whether said data types of said data are ..." Support for this amendment can be found throughout the Specification, and more specifically on page 3, lines 11-15. Claim 1 is also amended to recite the term "device" instead of reciting "technical device for clarity. In addition, the recitation to "technical device" has been eliminated from the preamble of the claim as the present claim is a method claim, not an apparatus claim. Additionally, Claim 1 is amended to recite the term "received data" as to as to maintain consistency (and proper antecedent basis) for the previously used term "data".

Claim 2 is amended to be consistent with the terms amended in Claim 1.

Claim 3 is amended for clarity and for fix the language of the claim.

Claim 4 is amended to be consistent with the term "device" which is amended in Claim 1.

Claims 12 and 13 have been amended to correct a typographical error, so these claims are now dependent upon independent claim 1. Thus, it is respectfully submitted that no new matter has been added by these amendments.

Objection to claims 12-13

Claims 12-13 have been rejected due to certain informalities. These claims have been amended to remove a typographical error correcting the dependency to claim 1. Therefore, in view of the amendments to claims 12 and 13, it is respectfully submitted that this rejection has been satisfied and should be withdrawn.

Rejection of Claim 10 under 35 USC § 112

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Claim 10 is rejected under 35 USC § 112, second paragraph. Claim 10 is cancelled by this response. Therefore, it is respectfully submitted that rejection is now moot and should be withdrawn.

Rejection of Claims 6-10 under 35 USC § 101

Claims 6-10 are rejected under 35 USC § 101. Claims 6-10 are cancelled by this response. Therefore, it is respectfully submitted that this rejection is now moot should be withdrawn.

Rejection of Claims 6-8 and 10 under 35 USC § 102(b)

Claims 6-8 and 10 are rejected under 35 USC § 102(b) as being anticipated by Guck (U.S. Patent No. 5,864,870). Claims 6-8 and 10 are cancelled by this response. Therefore, it is respectfully submitted that this rejection is now moot and should be withdrawn.

Rejection of Claims 1-4, 9, 12-13 under 35 USC § 103(a)

Claims 1-4, 9 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guck (U.S. Patent No. 5,864,870) in view of Esquibel et al. (U.S. Patent No. 6,662,186). Claim 9 has been cancelled by this response.

The present claimed invention provides a method for automatic detection of data types for data type dependent processing by a device. The method includes receiving data and analyzing the received data to determine whether the format of the data can be detected. After detecting the format of the received data, the detected format is used for evaluating whether the data types of the data are: metadata, data with a link pointing to reference data and any data referring to the link; essence data, data without an attached link pointing to reference data; or a container which contains at least one of: metadata, essence data, and a different data container. It is then evaluated to determine whether the technical device is able to interpret the metadata or essence data for reproducing a physical representation of the data so as to indicate that the data is either physical data or abstract data. The result such an evaluation is supplied to a device for data type dependent processing of the data.

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Guck describes a method in a server for storing and retrieving files of various formats in an object database coupled to a network including a multiplicity of clients also coupled to the network. The server includes a storage device for storing objects of the database. The method begins by determining the type and content of files received by the server from the clients coupled. Each file received by the server is transformed into an object. The transformed objects are stored in a hierarchy in accordance with the type and content thereof. The retrieving part of the process includes transmitting a "get" request to the server; searching a Virtual File class for an object whose name matches the file name; and examining corresponding properties of the matching object for compatibility with the first parameter. If compatible, a next parameter is examined for corresponding properties for compatibility. When all parameters have been examined, the content is enveloped and returned to the client that originated the "get" request. (See Abstract)

Guck describes "a network system where any client, no matter what type of format is being used, could create, originate or author a document and enable this document to be transmitted and received by clients having different types of formats; and also to have such a document receivable by appliances such as FAX machines or telephones" (Col. 1, lines 46-53). Guck uses, "'virtual files' instead of real files (i.e., the operating system files), [so that] the user is not bound to the operating systems' inherent limitations. For example, system files cannot be assigned a MIME type and subtype, which is a permanent record of the file. By using database objects as 'virtual' files, we can assign them all of the properties of a system plus whatever extra properties the user wishes them to have" (Col. 2, lines 44-50). Guck converts "one file format to another (e.g., RTF to PostScript) or even into non-file oriented formats (e.g., mail messages)" (Col. 4, lines 4-6) independent of the format of the original file. Guck, however, does not mention or suggest that the received data may be "metadata being defined as data with a link pointing to reference data and any data referring to said link" as in the present claimed invention. Although Guck gives examples of many types of file formats in the MIME protocol, Guck does not mention or suggest any format indicating metadata as in the present claimed invention. This is because Guck is only

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concerned with assigning a content-type to a MIME email which corresponds to a file extension when content-type is not explicitly specified (see Col. 9, lines 48-53 of Guck). Col. 4, lines 30-31 of Guck, cited by the Office Action, states that “[a] reference is a link or pointer to another object, and implies a relationship to that other object.” However, this is not the same as metadata, “being defined as data with a link pointing to reference data and any data referring to said link” as in the present claimed invention. An example of metadata is “W3C HOME ” as seen on page 6, line 33 of the current application. To the contrary, Guck does not contain metadata, as defined in the present claimed invention, as Guck is only concerned with the MIME content-type field. Additionally, Guck also neither discloses nor suggests “essence data being defined as data without an attached link pointing to reference data” or “a container containing at least one of: metadata, essence data, and a different data container” as recited in the present claimed invention. Therefore, Guck neither discloses nor suggests “metadata being defined as data with a link pointing to reference data and any data referring to said link, essence data being defined as data without an attached link pointing to reference data, a container containing at least one of: metadata, essence data, and a different data container” as recited in claim 1 of the present invention.

The Office Action correctly states that “Guck does not explicitly teach ... [an] interpretation by the technical device of specific data” (Office Action, Page 6). However, the Office Action erroneously states that “Guck teaches the claimed, to indicate that the data is either physical data (property) or abstract data (concept) (col. 4, lines 17-19)” (Office Action, Page 6). Col. 4, lines 17-19 of Guck describe that “[a]n object has features, which can be either an operation or a property.” Thus, the object states mentioned in Guck are completely unrelated to physicality or abstractness of the object. Guck further describes that “[a]n object is an abstract representation of a real-world concept or thing” (Col. 4, lines 14-15). However, Guck cannot indicate an object’s state as being “either physical data or abstract data” as in the present claimed invention. Merely stating an object’s features as being an operation or a property as in Guck is completely unrelated to data being physical data or abstract data as in the present claimed invention. Additionally, Guck does not evaluate the combination of

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physical or abstract data types in a data segment (i.e. a file). Therefore, Guck neither discloses nor suggests “evaluating whether said device is able to interpret said metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data” as recited in claim 1 of the present invention.

Esquibel describes a system and method for propagating data from one file format to another file format and analyzing the file format of saved data to determine whether the file can be opened by the requesting application program. If the file is of a format or version different than that of the requesting application program, the data propagation logic analyzes the file to determine the available file formats attached thereto and launches an executable module, either attached to the file or remotely accessible via a resource indicator, to convert the file to a new file of a format and/or version readable by the requesting application program. (See Abstract) An example of propagating data from one format to another file format is the transcoding method converting, for example, a JPEG to a GIF. Esquibel does not at all refer to the content of the file but only to the file format. This corresponds to an analysis at a file system level (like the recognition of standard formats like .jpg and .gif by Windows XP), without bringing the different types of data types in a file into context, or converting a word processing document over from one version of a program to a second version of the program (see Esquibel, Col. 4, lines 44-58). This is contrary to the present claimed invention where the relationship of different data types within a file is considered (i.e. the present invention operates at a logical level “above” the data format).

Additionally, Esquibel, similar to Guck, does not disclose or suggest metadata, the distinction between metadata and essence or data container or show the concept of physical data and abstract data or the distinction between such data types. Esquibel mentions files containing a pointer (see Fig. 3 and Col. 6, lines 39-52 of Esquibel). However, Esquibel does not mention or suggest data referring to the pointer and therefore, Esquibel does not disclose or suggest metadata as defined in claim 1 of the present invention. Additionally, Esquibel does not describe or suggest any file format suitable to be used in evaluating whether data is metadata or not. Esquibel also does

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not show or suggest the evaluation of the combination of such specific data types in a data segment (i.e. a file) as in the present claimed invention.

The Office Action argues that “Esquibel ... evaluat[es] whether said technical device is able to interpret said data for reproducing a physical representation of said data (Fig. 1, col. 4, lines 41-43). Esquibel teaches the claimed, supplying the result of said first evaluations to the technical device for data type dependent processing of said data (Fig. 1, col. 4, lines 59-65)” (Office Action, Page 6). Applicant respectfully disagrees. Col. 4, lines 41-43 of Esquibel describes that a “[p]rocess 106 communicates with format interpreter 118 via connection 122 to analyze and interpret the format associated with file 136.” Although Esquibel describes an interpreter which deals with the file format that can “analyze and parse the file extension associated with the file 136 and the version in which the file was last saved (word processor 109) from header information associated with the file 136” (Col. 4, lines 59-62), the interpreter is wholly unlike the present claimed invention. In the present claimed invention, it is evaluated “whether ... [a] device is able to interpret said metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data.” Esquibel is not concerned with metadata or essence data as in the present claimed invention. Esquibel is only concerned with file extensions which are completely unrelated to metadata or essence data. Additionally, Esquibel does not “reproduc[e] a physical representation of said data so as to indicate that the data is either physical or abstract data” as recited in the present claimed invention. Nowhere in Esquibel is there mention or suggestion of data being physical or abstract. This is because Esquibel is only concerned with file extension types and not with a physical representation of “data so as to indicate that the data is either physical data or abstract data” as recited in the present claimed invention. Therefore, Esquibel, with Guck, neither discloses nor suggests “evaluating whether said technical device is able to interpret said metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data” as recited in claim 1 of the present invention. Additionally, as Esquibel does not “evaluat[e] whether said technical device is able to interpret said metadata or essence data,” Esquibel, similarly to Guck, cannot “supply...the result of said

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evaluations to the technical device for data type dependent processing of said data” as recited in the present claimed invention.

The Office Action argues that “Esquibel teaches the claimed, supplying the result of said first evaluations to the technical device for data type dependent processing of said data ... [t]hus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention to have combined the teaches of the cited references” (Office Action, Page 6). Applicant respectfully disagrees. Guck describes storing and retrieving files independent of their format for the purpose of exchange. Esquibel describes propagating data from one file format to another format. While Guck is concerned with dealing with files independent of formats, Esquibel is specifically concerned with file formats. Moreover, the conversion of file formats is already addressed by Guck, where Guck describes converting “virtual files,” and therefore, there is no reason or motivation to combine the system of Guck and Esquibel.

However, even if the system of Guck and Esquibel were combined, the combination would be a file conversion system that can convert one file format to another and convert the files to “virtual files” that can be transmitted to or received by any user, regardless of the operating system or hardware used. This combined system still does not disclose or suggest the features of the present invention. The combined system does not disclose or suggest “evaluating whether said data types of said data are metadata ... essence data ... a container ... evaluating whether said technical device is able to interpret said metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data” as recited in the present claimed invention. The combined system would contain database objects that are “virtual” files (see Guck, Col. 2, lines 44-50) containing features which can be either an operation or a property (see Guck, Col. 4, lines 17-19). These objects, however, would not be “metadata ... essence data ... a container” as in the present claimed invention. Metadata is “defined as data with a link pointing to a reference data and any data referring to said link.” Essence data is “defined as data without an attached link pointing to reference data.” A container contains “at least one of: metadata, essence data, and a different data container.” Nowhere in the combined

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system, similar to the independent systems of Guck and Esquibel, is there mention or suggestion of such types of data. Therefore, the combined system of Guck and Esquibel neither disclose nor suggest "evaluating whether said data types of said data are metadata being defined as data with a link pointing to reference data and any data referring to said link, essence data being defined as data without an attached link pointing to reference data, a container containing at least one of: metadata, essence data, and a different data container" as recited in claim 1 of the present invention.

Additionally, the combined system would be able to assign the content-type field in a MIME type email as the file's extension in case the content-type field is not explicitly stated (see Col. 9, lines 48-53 of Guck) or if a content-type is not specified after data has been propagated from one file format to another (see Esquibel, Col. 4, lines 44-58). The combined system would not be able to evaluate whether the technical device is able to interpret the "metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data" as recited in the present claimed invention. The present application recites that "[t]ext is to be regarded as Abstract Data, because text is always a format for saving data. Formatted text can represent a direct physical representation of data, e.g. the PDF format." (Page 4, lines 32-35). Fig. 4 of the present application gives an example of physical data. Although the combined system may describe various text and graphical files, the combined system is not equivalent to "metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data" as recited in the present claimed invention. Additionally, the Office Action argues that "Guck teaches the claimed, to indicate that the data is either physical data (property) or abstract data (concept) (col. 4, lines 17-19). Applicant respectfully disagrees. Col. 4, lines 17-19 of Guck describe that "[a]n object has features, which can be either an operation or a property." Thus, the object states mentioned in Guck, when taken alone or in combination with Esquibel, are completely unrelated to physicality or abstractness of the object. Guck further describes that "[a]n object is an abstract representation of a real-world concept or thing" (Col. 4, lines 14-15). However, Guck, when taken alone or in combination with Esquibel, cannot indicate an object's state as being "either physical data or abstract data" as in the

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present claimed invention. Merely stating an object's features as being an operation or a property as in Guck is completely unrelated to data being physical data or abstract data as in the present claimed invention. Additionally, Guck, when taken alone or in combination with Esquibel, does not evaluate the combination of physical or abstract data types in a data segment (i.e. a file). Therefore, Guck and Esquibel, when taken individually or in combination, neither disclose nor suggest "evaluating whether said technical device is able to interpret said metadata or essence data for reproducing a physical representation of said data so as to indicate that the data is either physical data or abstract data" as recited in claim 1 of the present invention.

Furthermore, as the combined system of Guck and Esquibel cannot evaluate whether the device is able to interpret metadata or essence data, the combined system cannot "supply ... the result of said evaluations to the device for data type dependent processing of said data" as recited in the present claimed invention. Thus, Guck and Esquibel, when taken individually or in combination, neither disclose nor suggest the features of the present claimed invention.

Additionally, the objective of the present claimed invention is to provide a method for automatic detection of data types for data type dependent processing by a technical device. "Advantageously, the described method for data classification can be used in devices for data sorting, data storage e.g. DBMS, or data retrieval e.g. browsers. The described method can be used when different classes of data require different processing, e.g. different search algorithms, different storage methods or areas, different compression methods or different presentation methods" (application, Page 10, lines 12-18). To the contrary, in Guck "it is an object of ... [Guck] to provide a method for driving a database that solves the problem of transforming incoming files into objects for storage in the database and organizing the transformed files into a hierarchy of objects in accordance with the type and content of such incoming files for storage in the database. Another object of ... [Guck] is to use the MIME (Multi-Purpose Internet Mail Extension) standard for a file system by employing such standard as the basis for an object database schema ... [and also] to provide an object database schema that mimics a file system, thereby creating a virtual file system that employs

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the full categorization technique used by the MIME standard" (Col. 1, line 59 to Col. 2, line 6). The goal of Esquibel, which is unrelated to the present claimed invention and Guck, is to create "a system and a method for propagating data saved in one file format to another file format" (Col. 1, lines 6-62). "[I]t would be desirable to ensure that data saved in a particular file format and version is always available, even if the file format, version and the original application program are no longer available" (Col. 1, lines 54-57). There is no motivation or reason to combine Guck with Esquibel, as Guck transforms incoming files into objects for storage which is completely unrelated to Esquibel, which is concerned with transforming a current file format and version of a file into another file format and version. Guck transforms incoming files into objects for storage as "virtual files," which negates Esquibel's objectives of preserving file format and version as the transformed version of the file would not be a "virtual file." However, even if these references were combined, such a combination would only be a file conversion system that can convert one file format to another and convert the file to "virtual files" that can be transmitted to or received by any user, regardless of the operating system or hardware used. This combination still neither discloses nor suggests the features claimed in the present claimed invention.

Claim 9 has been cancelled by this response. Therefore, it is respectfully submitted that this rejection with respect to claim 9 is now moot and should be withdrawn.

In view of the above remarks it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Guck, when taken individually or combined with Esquibel that makes the present claim invention unpatentable. As claims 2-4 and 12-13 are dependent on independent claim 1, it is respectfully submitted that these claims are allowable for the same reasons as claim 1. Thus, it is further respectfully submitted that this rejection is satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited.

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If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due except for the RCE. Please charge the fee for the RCE and any other fees owed in connection with this response to Deposit Account 07-0832.

Respectfully submitted,
Marco Winter et al.

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